

REMARKS

Claims 1-27, 31 and 32 are pending in this application. By this Amendment, the specification and claims 4 and 26 are amended, and claims 28-30, which have previously been withdrawn, are canceled. Reconsideration based on the above amendments and following remarks is respectfully requested.

Applicants gratefully acknowledge the Office Action's indication that claims 6, 8, 14-17, 20 and 22-24 include allowable subject matter.

I. **THE SPECIFICATION MEETS ALL FORMAL REQUIREMENTS**

~~The Office Action objects to the specification because of an informality. The~~
specification has been amended. Withdrawal of the objection to the specification is respectfully requested.

II. **CLAIM 7 SATISFIES THE REQUIREMENTS
OF 35 U.S.C. §112, FIRST PARAGRAPH**

The Office Action rejects claim 7 under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement. Specifically, the Office Action, at page 2, asserts that "there is no way to define a through hole with a resist (claim 1) that will accept the first metal layer while saying that said resist will not be present (claim 7)." Applicants respectfully disagree with the Examiner's interpretation of the claim language recited in dependent claim 7.

In claim 7 (which depends on dependent claim 5), the metal layer including a first metal layer and a second metal layer is formed in the following manner. First, the first metal layer is formed in the through hole. Next, the resist layer is removed. In the following step, the second metal layer is formed so as to cover the first metal layer. Therefore, while the resist layer is present when forming the first metal layer, the resist layer is removed when forming the second metal layer. Support for the features of claim 7 is found in the specification, at least at pages 10-12, paragraphs 0075, 0076, 0081 and 0082, and in FIGS. 3A-3C.

Withdrawal of the rejection of claim 7 under 35 U.S.C. §112, first paragraph, is respectfully requested.

III. CLAIMS 4 AND 26 SATISFY THE REQUIREMENTS OF 35 U.S.C. §112, SECOND PARAGRAPH

The Office Action rejects claims 4 and 26 under 35 U.S.C. §112, second paragraph, for various informalities. Claims 4 and 26 have been amended obviate the rejection.

Withdrawal of the rejection of claims 4 and 26 under 35 U.S.C. §112, second paragraph, is respectfully requested.

IV. THE CLAIMS DEFINE ALLOWABLE SUBJECT MATTER

The Office Action rejects claims 1-3, 5, 9, 10, 13, 18, 19, 21, 25, 27, 31 and 32 under 35 U.S.C. §102(b) over U.S. Patent No. 4,950,623 to Dishon (hereinafter "Dishon"); and claims 11 and 12 under 35 U.S.C. §103(a) over Dishon in view of U.S. Patent No. 6,300,250 to Tsai (hereinafter "Tsai"). The rejections are respectfully traversed.

Dishon fails to teach or suggest the feature "forming a resist layer that defines a through hole which overlaps at least a portion of a pad" set forth in independent claim 1. The Office Action, at page 3, asserts that Dishon, at col. 3, lines 42, 45, 60-63, col. 4, lines 25 and 31, and in Figures 1 to 3, teaches "forming a resist layer, as a photoresist inherently necessary to define through hole through layer 12 and overlap...would inherently require the photoresist overlap of the pad." Applicants disagree with this assertion.

In order to be anticipatory under 35 U.S.C. §102, a prior art reference must disclose each and every feature set forth in the claims. This rule was not properly applied by the Examiner in formulating the rejection of claims 1-3, 5, 9, 10, 13, 18, 19, 21, 25, 27, 31 and 32.

Particularly, Dishon does not disclose, teach or suggest "forming a resist layer that defines a through hole which overlaps at least a portion of a pad". The Office Action fails to

point out where in its specification Dishon discloses this feature. Instead, the Office Action seems to assume that a resist layer must be present in order to form the device in Dishon.

Furthermore, Dishon, at col. 2, lines 5-14, teaches away from using a resist (or photoresist) layer in fabrication of bumps on contact pads.

Tsai fails to make up for the deficiencies of Dishon.

For at least these reasons, it is respectfully submitted that independent claim 1 is patentable over Dishon. Claims 2, 3, 5, 9-13, 18, 19, 21, 25, 27, 31 and 32, which depend from independent claim 1, also are patentable over the applied art for at least the reasons discussed. Applicants respectfully request that the rejections of claims 1-3, 5, 9-13, 18, 19, 21, 25, 27, 31 and 32 under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) be withdrawn.

V. INFORMATION DISCLOSURE STATEMENT

The Examiner is requested to consider the references submitted with the Information Disclosure Statement filed herewith.

VI. CONCLUSION

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-27, 31 and 32 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

George P. Simion
Registration No. 47,089

JAO:GPS/dmw

Date: December 17, 2003

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--